

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/550,525
Source: P4710
Date Processed by STIC: 10/6/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.2.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>) , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office; Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

10/580,525

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 Invalid Line Length The rules require that a line **not exceed** 72 characters in length. This includes white spaces.

- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.

- 4 Non-ASCII The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

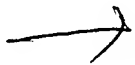
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.

- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If **intentional**, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is **MANDATORY** if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence

- 11 Use of <220>
  Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is **MANDATORY** if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



PCT

RAW SEQUENCE LISTING

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,525

TIME: 11:42:43

Input Set : A:\050508-1370.txt

Output Set: N:\CRF4\10062005\J550525.raw

3 <110> APPLICANT: Shim, Hyunsuk
 4 Liang, Zhongxing
 5 Goodman, Mark
 6 Taichman, Russel
 7 Umbreh, Jay
 9 <120> TITLE OF INVENTION: CXCR4 Antagonists and Methods of Their Use
 11 <130> FILE REFERENCE: 50508-2330 (Emory Ref. No. 02070)
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/550,525
 C--> 13 <141> CURRENT FILING DATE: 2005-09-22
 13 <150> PRIOR APPLICATION NUMBER: 60/458,217
 14 <151> PRIOR FILING DATE: 2003-03-27
 16 <160> NUMBER OF SEQ ID NOS: 20
 18 <170> SOFTWARE: PatentIn version 3.2
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 14
 22 <212> TYPE: PRT
 23 <213> ORGANISM: Artificial
 25 <220> FEATURE:
 26 <223> OTHER INFORMATION: (sequence of T140)
 29 <220> FEATURE:
 30 <221> NAME/KEY: MISC_FEATURE
 31 <222> LOCATION: (3)..(3)
 32 <223> OTHER INFORMATION: X = Nal
 34 <220> FEATURE:
 35 <221> NAME/KEY: MISC_FEATURE
 36 <222> LOCATION: (8)..(8)
 37 <223> OTHER INFORMATION: X = dLys
 39 <220> FEATURE:
 40 <221> NAME/KEY: MISC_FEATURE
 41 <222> LOCATION: (12)..(12)
 42 <223> OTHER INFORMATION: X = Cit
 44 <400> SEQUENCE: 1
 W--> 46 Arg Arg Xaa Cys Tyr Arg Lys Xaa Pro Tyr Arg Xaa Cys Arg
 47 1 5 10
 50 <210> SEQ ID NO: 2
 51 <211> LENGTH: 14
 52 <212> TYPE: PRT
 53 <213> ORGANISM: Artificial
 55 <220> FEATURE:
 56 <223> OTHER INFORMATION: sequence of TN14003
 59 <220> FEATURE:
 60 <221> NAME/KEY: MISC_FEATURE
 61 <222> LOCATION: (3)..(3)

pp 1-5
 Does Not Comply
 Corrected Diskette Needed

give source
 of genetic material
 (see item 11 on Enol
 summary sheet)

from what
 is this
 derived?

RAW SEQUENCE LISTING

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Input Set : A:\050508-1370.txt

Output Set: N:\CRF4\10062005\J550525.raw

62 <223> OTHER INFORMATION: X = Nal ✓
 64 <220> FEATURE:
 65 <221> NAME/KEY: MISC_FEATURE
 66 <222> LOCATION: (6)..(6) ✓
 67 <223> OTHER INFORMATION: X = Cit
 69 <220> FEATURE:
 70 <221> NAME/KEY: MISC_FEATURE ✓
 71 <222> LOCATION: (8)..(8)
 72 <223> OTHER INFORMATION: X = dLys
 74 <220> FEATURE:
 75 <221> NAME/KEY: MISC_FEATURE
 76 <222> LOCATION: (12)..(12) ✓
 77 <223> OTHER INFORMATION: X = Cit
 79 <400> SEQUENCE: 2

W--> 81 Arg Arg Xaa Cys Tyr Xaa Lys Xaa Pro Tyr Arg Xaa Cys Arg
 82 1 5 10
 85 <210> SEQ ID NO: 3
 86 <211> LENGTH: 18
 87 <212> TYPE: PRT
 88 <213> ORGANISM: Artificial
 90 <220> FEATURE:
 91 <223> OTHER INFORMATION: Sequence of T22
 94 <220> FEATURE:
 95 <221> NAME/KEY: MISC_FEATURE
 96 <222> LOCATION: (4)..(4)
 97 <223> OTHER INFORMATION: X is Nal which is L-3-(2-napthyl)alanine
 99 <400> SEQUENCE: 3
 101 Arg Arg Trp Cys Tyr Arg Lys Cys Tyr Lys Gly Tyr Cys Tyr Arg Lys
 102 1 5 10 15
 105 Cys Arg
 109 <210> SEQ ID NO: 4
 110 <211> LENGTH: 21
 111 <212> TYPE: DNA
 112 <213> ORGANISM: Artificial
 114 <220> FEATURE:
 115 <223> OTHER INFORMATION: cDNA sequence segments of CXCR4
 117 <400> SEQUENCE: 4
 118 aataaaatct tcctgcccac c 21
 121 <210> SEQ ID NO: 5
 122 <211> LENGTH: 21
 123 <212> TYPE: DNA
 124 <213> ORGANISM: Artificial
 126 <220> FEATURE:
 127 <223> OTHER INFORMATION: cDNA sequence segments of CXCR4
 129 <400> SEQUENCE: 5
 130 aaggaagctg ttggctgaaa a 21
 133 <210> SEQ ID NO: 6
 134 <211> LENGTH: 19
 135 <212> TYPE: DNA

? "Cys" is at
location 4

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,525

DATE: 10/06/2005

TIME: 11:42:43

Input Set : A:\050508-1370.txt

Output Set: N:\CRF4\10062005\J550525.raw

136 <213> ORGANISM: Artificial
 138 <220> FEATURE:
 139 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
 141 <400> SEQUENCE: 6
 142 taactacacc gaggaatg 19
 145 <210> SEQ ID NO: 7
 146 <211> LENGTH: 19
 147 <212> TYPE: DNA
 148 <213> ORGANISM: Artificial
 150 <220> FEATURE:
 151 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
 153 <400> SEQUENCE: 7
 154 tcttcttaac tggcattgt 19
 157 <210> SEQ ID NO: 8
 158 <211> LENGTH: 19
 159 <212> TYPE: DNA
 160 <213> ORGANISM: Artificial
 162 <220> FEATURE:
 163 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
 165 <400> SEQUENCE: 8
 166 tctttgccaa cgtcagtga 19
 169 <210> SEQ ID NO: 9
 170 <211> LENGTH: 19
 171 <212> TYPE: DNA
 172 <213> ORGANISM: Artificial
 174 <220> FEATURE:
 175 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
 177 <400> SEQUENCE: 9
 178 gtttcagcac atcatggtt 19
 181 <210> SEQ ID NO: 10
 182 <211> LENGTH: 19
 183 <212> TYPE: DNA
 184 <213> ORGANISM: Artificial
 186 <220> FEATURE:
 187 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
 189 <400> SEQUENCE: 10
 190 catcatgggtt ggccttatc 19
 193 <210> SEQ ID NO: 11
 194 <211> LENGTH: 19
 195 <212> TYPE: DNA
 196 <213> ORGANISM: Artificial
 198 <220> FEATURE:
 199 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
 201 <400> SEQUENCE: 11
 202 tcctgcctgg tattgtcat 19
 205 <210> SEQ ID NO: 12
 206 <211> LENGTH: 19
 207 <212> TYPE: DNA
 208 <213> ORGANISM: Artificial

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,525

DATE: 10/06/2005

TIME: 11:42:43

Input Set : A:\050508-1370.txt

Output Set: N:\CRF4\10062005\J550525.raw

210 <220> FEATURE:
 211 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
 213 <400> SEQUENCE: 12
 214 tcctgtcctg ctattgcat 19
 217 <210> SEQ ID NO: 13
 218 <211> LENGTH: 19
 219 <212> TYPE: DNA
 220 <213> ORGANISM: Artificial
 222 <220> FEATURE:
 223 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
 225 <400> SEQUENCE: 13
 226 gcatcgactc cttcatcct 19
 229 <210> SEQ ID NO: 14
 230 <211> LENGTH: 19
 231 <212> TYPE: DNA
 232 <213> ORGANISM: Artificial
 234 <220> FEATURE:
 235 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
 237 <400> SEQUENCE: 14
 238 ggaaagcgag gtggacatt 19
 241 <210> SEQ ID NO: 15
 242 <211> LENGTH: 25
 243 <212> TYPE: DNA
 244 <213> ORGANISM: Artificial
 246 <220> FEATURE:
 247 <223> OTHER INFORMATION: siRNA
 249 <400> SEQUENCE: 15
 250 aauaaaau cuucccccac cdttdt 25
 253 <210> SEQ ID NO: 16
 254 <211> LENGTH: 25
 255 <212> TYPE: DNA
 256 <213> ORGANISM: Artificial
 258 <220> FEATURE:
 259 <223> OTHER INFORMATION: siRNA
 261 <400> SEQUENCE: 16
 262 aaggaagcug uggcugaaa adtdt 25
 265 <210> SEQ ID NO: 17
 266 <211> LENGTH: 20
 267 <212> TYPE: DNA
 268 <213> ORGANISM: Artificial
 270 <220> FEATURE:
 271 <223> OTHER INFORMATION: CXCR4-specific primers
 273 <400> SEQUENCE: 17
 274 gaaccctgtt tccgtgaaga 20
 277 <210> SEQ ID NO: 18
 278 <211> LENGTH: 20
 279 <212> TYPE: DNA
 280 <213> ORGANISM: Artificial
 282 <220> FEATURE:

RAW SEQUENCE LISTING

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,525

TIME: 11:42:43

Input Set : A:\050508-1370.txt

Output Set: N:\CRF4\10062005\J550525.raw

283 <223> OTHER INFORMATION: CXCR4-specific primers
285 <400> SEQUENCE: 18
286 cttgtccgtc atgcttctca 20
289 <210> SEQ ID NO: 19
290 <211> LENGTH: 20
291 <212> TYPE: DNA
292 <213> ORGANISM: Artificial
294 <220> FEATURE:
295 <223> OTHER INFORMATION: primer
297 <400> SEQUENCE: 19
298 gacaggatgc agaaggagat 20
301 <210> SEQ ID NO: 20
302 <211> LENGTH: 20
303 <212> TYPE: DNA
304 <213> ORGANISM: Artificial
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Primer
309 <400> SEQUENCE: 20
310 tgcttgctga tccacatctg 20

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/550,525

DATE: 10/06/2005
TIME: 11:42:44

Input Set : A:\050508-1370.txt
Output Set: N:\CRF4\10062005\J550525.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 3, 8, 12

Seq#:2; Xaa Pos. 3, 6, 8, 12

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

VERIFICATION SUMMARY

DATE: 10/06/2005

PATENT APPLICATION: US/10/550,525

TIME: 11:42:44

Input Set : A:\050508-1370.txt

Output Set: N:\CRF4\10062005\J550525.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:46 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0

L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0